

ABSTRACT

This invention relates to agents and conjugates that can be used to detect and isolate target components from complex mixtures such as proteins and protein fragments from biological samples from in vivo and in vitro sources. Agents comprise a detectable group bound to a photoreactive group. Conjugates comprise agents coupled to substrates by covalent bounds which can be selectively cleaved with the administration of electromagnetic radiation. Targets substances labeled with detectable molecules can be easily identified and separated from a heterologous mixture of substances. Exposure of the conjugate to radiation releases the target in a functional form and completely unaltered. Using photocleavable molecular precursors as the conjugates, label can be incorporated into macromolecules, the nascent macromolecules isolated and the label completely removed. The invention also relates to targets isolated with these conjugates which may be useful as pharmaceutical agents or compositions that can be administered to humans and other mammals.